Phipps Ocean Park Beach Restoration Project
SEIS Scope
Incorporating Comments Submitted by USFWS and EPA

Introduction: This document describes the Scope of the Phipps Ocean Park Beach Restoration Project SEIS. The SIES will be a supplement to the Coast of Florida FEIS prepared by the USACE-Jacksonville District in October 1996 for Region III (hereinafter COF FEIS). The SEIS is being prepared in support of a §404/§10 permit application for the project submitted to the USACE-Jacksonville District by the Town of Palm Beach. This is the first SEIS ever prepared by or on behalf of the Jacksonville District for a non-federal beach fill project permit in Florida.

The description of the SEIS scope which follows is based on the document elements and issues discussed at the SEIS Scoping meeting of October 15, 2001 and review of federal law and regulations governing the content and organization of NEPA documents prepared in the permit or regulatory context. Some elements were not discussed at the Scoping meeting but are included per existing regulations; this includes the requirements for a document index, appendix of public comments and responses, and a description of the Applicant's Preferred Alternative. In some areas where federal law or regulations specify the content or nature of the SEIS analysis relevant to items discussed during the meeting, the applicable regulatory provision is referenced. In some cases, topics identified for analysis in one section of the SEIS during the Scoping meeting have been assigned to other sections of the SEIS, based on previous EIS documents issued by the USACE, CEQ regulations/guidance, or USACE regulatory guidance governing preparation of NEPA documents.

Purpose and Need: This SEIS section will briefly specify the underlying purpose and need of the project from the perspective of the applicant (33 CFR 325, Appendix B-NEPA Implementation). The scope of the purpose and need statement will focus principally on the proposed activity requiring a Department of the Army (DOA) permit. The purpose and need of the project will be evaluated on the basis of the project goals as identified during the Scoping meeting and including: (1) protection of upland improvements and development/storm damage reduction; (2) establishment of a recreational beach at Phipps Ocean Park; (3) restoration of longshore sediment transport in the region to offset the effects of Lake Worth Inlet and updrift armoring structures, and (4) maintenance or enhancement of turtle nesting habitat. The Purpose and Need Section will specifically include an analysis of historic sediment transport conditions in the area from Lake Worth Inlet to South Lake Worth Inlet (study area) and shoreline erosion rates within the project area.

Project Alternatives Analysis: Based on the information and analysis in the sections on the

"Affected Environment" and the "Environmental Consequences", the Project Alternatives Analysis Section of the SEIS will present the environmental impacts of the *Applicant's Preferred Alternative* and other alternatives in a comparative form. The Project Alternatives Analysis Section will provide a clear basis for choice among options available to the decision maker and the public. This Section will devote substantial treatment to each alternative considered in detail including the Applicant's Preferred Alternative so that reviewers may evaluate the comparative merits of the alternatives.

Consistent with guidance in 33 CFR 325, Appendix B, the alternatives selected for detailed analysis should be those alternatives that are feasible, accomplish the applicant's underlying purpose and need, and that would satisfy the preferred federal action alternative (permit issuance). In general, the detailed analysis of the four alternatives identified below will be thorough enough to use for both the public interest review and the 404(b)(1) guidelines reviews, where applicable.

In this section, the analysis will explore and objectively evaluate all reasonable alternatives to accomplish the project purpose and need. The four project alternatives expected to be "considered further" in a detailed analysis are:

1. No-Action Alternative: The SEIS will evaluate the "no action" alternative in light of the current and expected conditions of the shoreline in the project area. The no-action analysis will include among others, the assumption that a durable natural rock formation exists under the sandy beach throughout the proposed fill area (at same elevation as the exposed hardbottom in the project area). This no action alternative will yield a predicted shoreline configuration and condition if no action to permit the project occurs. The no action alternative is one that results in no construction requiring a USACE permit. The no action alternative may occur by either: (1) the applicant electing to modify the project to eliminate work under jurisdiction by the USACE; or, (2) by denial of the permit. (33CFR Part 325, Appendix B - NEPA Implementation, Paragraph 9.b.5).

2. Beach fill with periodic renourishment: The second alternative to be examined in depth in the SEIS will be a beach fill project with periodic renourishment. This alternative will include a reasonable range of beach fill lengths and fill volumes. Adjustments of the project length or fill volumes will be assessed in relation to potential environmental consequences and the likelihood of satisfying the project purpose and need. As identified during the Scoping meeting, one beach fill/renourishment alternative will be to extend the fill area 2,000 feet further north (when compared to the DEP permitted project) and whether such an extension would improve or diminish performance of the project and/or reduce the renourishment frequency or volume. The potential for adversely affecting existing hardbottom through this extension of the fill area will be addressed. Analysis of the beach fill/renourishment alternative will distinguish between the beach fill options suitable for Phipps Ocean Park beach and the projects generally described in the COF FEIS, as they may differ in project purpose, length, and expected renourishment interval. The analysis will further include the potential impact of the beach fill/renourishment alternative on the

regional sediment transport conditions, storm damage reduction, recreational beach access, marine turtle nesting areas, and beach management practices. Finally, all beach fill/renourishment alternatives will assume that a 400-foot dredge buffer will be established between the proposed borrow areas and adjacent offshore hardbottom.

3. Beach fill with periodic renourishment stabilized by groins: The third project alternative to be analyzed in depth will be beach fill/renourishment with the addition of stabilizing groins or structures. The cost implications of this alternative, including potential reduction of renourishment intervals, will be included in the analysis, along with the issues and considerations identified in alternative 2.

4. The applicant's preferred alternative. Finally, as required in 33 CFR part 325, Appendix B, the SEIS will identify and evaluate the "Applicant's Preferred Alternative". Similar to the analysis described for alternative 2, the expected environmental consequences for this alternative will be analyzed in a comparative manner relative to other alternatives, along with the extent to which this alternative satisfies the project purpose and need. Analysis of the Applicant's preferred Alternative will be sufficient for the Corp's public interest review and 404(b)(1) guidelines review, where applicable.

Based on the identified purpose and need, the Project Alternatives Analysis Section will also identify alternatives eliminated from detailed consideration, and the basis upon which each alternative was eliminated from detailed consideration. Alternatives likely to be eliminated from detailed consideration include: (1) alternatives evaluated and eliminated during the DEP permitting process for the Phipps Ocean Park Project; (2) installation of a PEP reef, (3) installation of groins (without beach fill) to mimic the natural nearshore hardbottom, and (4) modification of the Lake Worth Inlet sand transfer plant.

Finally, the Project Alternatives Analysis Section will include reasonable alternatives not within the jurisdiction of the DOA permit expected to be requested by the applicant for the Phipps Ocean Park Beach Restoration Project. These "extra-jurisdictional" alternatives are expected to include: (1) limitations upon armoring of the project area shoreline or adjacent shorelines; (2) relocation of roads or upland infrastructure landward of the proposed project area; (3) relocation or installation of dune overwalks to avoid pedestrian damage to the dune system; (4) redirection of storm water runoff away from the beach to reduce stormwater erosion of the shoreline. As with other alternatives, the analysis of the extra-jurisdictional alternatives will include the expected environmental consequences of the measures and the extent to which the alternatives fulfill the project purpose and need. Finally, appropriate mitigation and monitoring measures not already included in the applicant's preferred alternative will also be examined in the Project Alternatives Analysis Section.

Affected Environment: As provided in 40 CFR §1502.15 (Affected Environment), the SEIS will succinctly describe the environment of the area to be affected by the alternatives under consideration. The descriptions will be no longer than necessary to understand the effects of the

alternatives. Data and analysis in the Affected Environment discussion will be commensurate with the importance of the impact, with less important material summarized, consolidated, or simply referenced. The four most important environmental impact issues identified, during the Scoping meeting and in subsequent comments from EPA and NMFS were: (1) the potential for the project to adversely affect hardbottom and open bottom in the fill and borrow areas; (2) the potential for the project to adversely affect marine sea turtles in the fill and borrow areas; (3) the cumulative impact of beach nourishment activities on nearshore hardbottom, open bottom, and marine sea turtle nesting in the area between Lake Worth Inlet and South Lake Worth Inlet; and (4) the potential impacts to macro invertebrate fauna at the borrow sites and fill areas, including turbidity/sedimentation impacts to pelagic species, particularly larval and juvenile fish and invertebrate transport in the water column and how these impacts are relevant to seasonal recruitment windows. This section will include a functional assessment of the nearshore hardbottom, offshore hardbottom and borrow areas. Finally, as described in the Environmental Consequences Section, the SEIS will include an assessment of the functions and values provided by artificial reef habitats placed in different water depths and compare them to those of natural hardbottom.

With respect to cumulative hardbottom impacts, the area to be addressed in the SEIS will be from Lake Worth Inlet to South Lake Worth Inlet. Based on aerial photography available from Palm Beach County, a baseline map of nearshore hardbottom will be established for the year 1990 or other time frame about 10 years ago - dependent upon the quality of available photography. No limiting depth of water or seaward extent of this map was identified during the Scoping meeting, however, subsequent discussions will be undertaken to clarify this parameter. The effects of any nourishment, sea level rise, and natural storm events upon this hardbottom will be evaluated. The Affected Environment Section will identify the type, location, and general character (ephemeral vs. stable) of hardbottom in this region. A field survey will be performed within each borrow area. Divers will be towed to visually document the presence or absence of existing hardbottom in the borrow areas with diver investigation of suspected hardbottom.

Other elements of the Affected Environment analysis will include evaluation of submerged cultural resources and marine sea turtle habitat requirements. All reasonably reliable and available sea turtle nesting data will be reviewed and incorporated in the document, directly or by reference as warranted. The USFWS Biological Opinion will be included as an Appendix to the SEIS and the Applicant's Preferred Alternative will be analyzed in light of the conditions and requirements set forth in the Biological Opinion. Documentation of storm damage subsequent to the COF FEIS should be identified. The findings of the submerged cultural resource remote sensing survey performed within the borrow areas in May 2000 will be provided, along with the State Historic Preservation Officer's letter response to this investigation.

Environmental Consequences. As provided in 40 CFR §1502.16 (Environmental Consequences), the SEIS will analyze the relative environmental impacts of the detailed alternatives identified above. The discussion will include the environmental impacts of these alternatives, any adverse environmental impacts which cannot be avoided should the Applicant's Preferred Alternative be

implemented, the relationship between short term uses of the environment and the maintenance and enhancement of long term productivity, and any irreversible or irretrievable commitments of resources which would be involved should the Applicant's Preferred Alternative be implemented. In addition to the potential impact of the project on hardbottom habitat and the cumulative impact of beach nourishment activities in the area, USFWS, EPA and NFMS identified other potential environmental consequences of the project that should be reviewed in the SEIS. The written comments of these commenting agencies, while not repeated here, are recognized by reference.

The Phipps Ocean Park SEIS is a supplement to the COF FEIS for Region III. As provided in 40 CFR §1502.20 (Tiering), supplemental NEPA documents should build upon and extend the original EIS document and eliminate repetitive discussion of the same issues previously addressed. The COF FEIS is not sufficient to analyze the Phipps Ocean Park project, however, it will allow a focus "on the actual issues ripe for decision in the applicant's preferred alternative." Because a broad environmental impact statement has been prepared, the SEIS will summarize the issues discussed in the COF FEIS and incorporate discussions from the broader statement by reference. The SEIS will concentrate on the issues specific to the requested permitting decision (See 40 CFR §1502.20).

Among other issues, the SEIS will evaluate the potential impacts to: (a) nearshore reefs within the project area; (b) reefs to the north and south of the project fill area - including soft bottom fauna and infauna; and, (c) associated impacts upon Essential Fish Habitat (EFH). The EFH assessment will be incorporated into the SEIS, rather than be produced as a stand-alone document, and will provide a level of detail and analysis commensurate with the level of anticipated impacts. As required by the Magnuson-Stevens Act and supporting regulations, the EFH Assessment will also consider cumulative impacts. Consistent with established and accepted practice, the EFH cumulative impact analyses will cover species managed under the South Atlantic Fishery Management Council, as well as the prey of those managed species. The analysis will address fecundity and the eggs and larvae of those managed species. Turbidity and sedimentation impacts associated with the project will be addressed in this context.

Coastal Tech will examine other Environmental Consequences commensurate with the importance of the impact, including but not limited to: water quality and hazardous/toxic/radioactive waste particularly associated with the inactive sewer outfall pipe in borrow area III. The nearshore impact analysis will identify and summarize previous macro-invertebrate studies relative to borrow area impacts and recovery of nearshore hardbottom affected by nourishment activities. In addition, the success or failure of prior nearshore mitigative reefs in Palm Beach County - such as for the Jupiter/Carlin and Juno projects -- will be assessed, including how the location and design of the previous mitigation reefs may have affected their performance. Finally, the SEIS will evaluate and analyze the applicant's preferred mitigation measures, in light of previous mitigation efforts in the area.

Cumulative impacts will be addressed in accordance with CEQ guidelines. The SEIS will identify and evaluate past and present beach fill projects and those in the foreseeable future within the

defined study area between Lake Worth Inlet and South Lake Worth Inlet. Parameters to be evaluated include trends in nearshore hardbottom habitat and sea turtle nesting from the mid 1980's through 2001. Trend analysis will include mapping of nearshore hardground habitat from select color-digitized aerials (for up to 3 sets or years) over the past 20 years. Features will be mapped remotely from the aerials using ERDAS multi-spectral imaging software and Arc View GIS. Spatial analysis and trends will be identified and quantified using Arc View GIS applications. Past, present, and future beach projects within the town limits will be included in the analysis. Information on other past or future projects within the study area will be obtained from the County or State of Florida. A matrix will be compiled which summarizes changes in nearshore habitat cover and the net changes due to past, present, and future projects. Historic sea turtle nesting data and nesting beach width will be evaluated for the same time scale and study area. The analysis will be sufficient to determine whether the preferred alternative will have a significant cumulative impact upon hardground habitat and sea turtles. The cumulative impact assessment report will be included in Appendix 7.

Based on 40 CFR §1502.17, the SEIS will include also include: (1) a List of Preparers, (2) a Public Involvement Statement of the dates and nature of all public notices, scoping meetings and public hearings, and parties notified, (3) Appendices as listed below, and (4) an Index of the SEIS designed to provide an easy reference to the items discussed in the EIS.

Appendices:

1. Design Document
2. U.S. Fish & Wildlife Service Biological Opinion
3. Project Justification
4. Supplementary Geotechnical Analysis including borrow area boundaries, sediment quality, overfill factor, and 400' dredge buffer areas.
5. Reef Mitigation and Monitoring Plan
6. Hardbottom Survey Reports including summary of findings from the nearshore hardbottom video transects (February 2000), offshore hardbottom transects in the vicinity of borrow area (June 2000), and Borrow Areas Diver Inspection Report (upcoming).
7. Cummulative Impact Assessment Report covering beach nourishment activities for the period 1980 to 2011 from Lake Worth Inlet to South Lake Worth Inlet.
8. Clean Water Act Section 404(b)(1) Evaluation including analysis of water quality, turbidity, and mitigation sequence analysis.
9. Public Comments and Responses
10. Florida Coastal Zone Management Program – Consistency Evaluation

All information will be provided on compact disks with aerials in digital format.